

IN THE CLAIMS

The following listing of the claims is provided in accordance with 37 C.F.R. §1.121.

1. (original) An alignment method comprising the following steps:
laying out a pattern representing a hexagonal arrangement of cMUT elements having axes of symmetry, said laid-out pattern comprising a first set of graphical data;
processing said first set of graphical data to rotate said pattern by a predetermined angle relative to a fixed rectilinear frame of reference having two mutually orthogonal axes, said predetermined angle being selected so that an axis of symmetry of said hexagonal arrangement of hexagonal cMUT elements is aligned with an axis of a first fixed rectilinear frame of reference;
laying out a first alignment key having an axis aligned with an axis of said fixed first rectilinear frame of reference, said laid-out alignment key comprising a second set of graphical data;
transferring said rotated pattern and said first alignment key to a mask; and
placing said mask over a substrate comprising a hexagonal arrangement of CMOS cells having axes of symmetry respectively aligned with the axes of a second fixed rectilinear frame of reference, and a second alignment key having an axis aligned with an axis of said second fixed rectilinear frame of reference, said mask being placed so that said first alignment key is aligned with said second alignment key.

2. (original) The method as recited in claim 1, wherein each of said cMUT elements is hexagonal and each of said CMOS cells is rectangular.

3. (original) An alignment method comprising the following steps:
laying out a pattern representing a hexagonal arrangement of cMUT elements having axes of symmetry, said laid-out pattern comprising a first set of graphical data;

laying out a first alignment key having an axis, said laid-out alignment key comprising a second set of graphical data;

processing said second set of graphical data to rotate said first alignment key by a predetermined angle relative to said axes of symmetry, said predetermined angle being selected so that said axis of said first alignment key is aligned with one of said axes of symmetry of said hexagonal arrangement of hexagonal cMUT elements;

transferring said pattern and said rotated first alignment key to a mask; and placing said mask over a substrate comprising a hexagonal arrangement of CMOS cells having orthogonal axes of symmetry respectively aligned with the axes of a second fixed rectilinear frame of reference, and a second alignment key having an axis aligned with an axis of said second fixed rectilinear frame of reference, said mask being placed so that said first alignment key is aligned with said second alignment key.

4. (original) The method as recited in claim 3, wherein each of said cMUT elements is hexagonal and each of said CMOS cells is rectangular.

5.-14. (canceled).